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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,370	12/21/2000	William J. LaBarge	DP-303157	8629

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,370

Applicant(s)

LABARGE ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: translation of JP 11-090226.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 20, 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-090226.

With respect to claims 20, 22-24, JP 11-090226 discloses a catalytic converter comprising:

a catalyst substrate material comprising cordierite, a zirconium phosphate layer disposed on said substrate; a catalyst layer disposed on said zirconium phosphate (see, for example, Fig. 1, translation pages 15-16, 23-29).

With respect to claim 22, JP 11-090226 discloses that said zirconium phosphate layer is disposed on said catalyst substrate material and a catalyst material layer containing platinum, palladium, rhodium, etc. is disposed on said zirconium phosphate layer (see, for example, translation pages 23-24).

With respect to claims 23-24, JP 11-090226 discloses that said zirconium phosphate layer has a thickness of up to about 4 or 10 nanometers ((see, for example, Fig. 1, translation page 16).

Instant claims 20, 22-24 structurally read on the apparatus of JP 11-090226.

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

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6. Claims 15, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-090226 in view of Swaroop et al (5,447,694), Cyron et al (5,116,681) and Deeba et al (6,375,910).

The apparatus of JP 11-090226 is substantially the same as that of the instant claims, but is silent as to whether the shell may be disposed around the substrate.

However, Fig. 1 of JP 11-090226 apparently shows a shell around the substrate.

In any event, Swaroop et al, Cyron et al and Deeba et al (see, for example, col. 18, lines 18-20) disclose the conventionality of providing the shell around the substrate.

It would have been obvious to one having ordinary skill in the art to provide a shell around the substrate as taught by Swaroop et al and Cyron et al in the apparatus of JP 11-090226, if not inherent therein, for covering the catalyst substrate thereof.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-090226 in view of Swaroop et al (5,447,694), Cyron et al (5,116,681) and Deeba et al (6,375,910) as applied to claims 15, 17-19 above and further in view of Deeba et al (6,375,910) and Hampton (5,950,423).

Deeba et al discloses that the cordierite carrier may contain components, such as zirconium (see, for example, col. 7, lines 5-7; col. 8, lines 53-57).

Hampton further discloses that the carrier may contain components suitable for high temperature, such as cordierite, zirconium, etc. and mixture thereof (see, for example, col. 5, lines 57-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select an appropriate material for the refractory carrier, such as zirconia, as taught by Deeba et al and Hampton in the apparatus of JP 11-090226, since it

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has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-090226 in view of Deeba et al (6,375,910) and Hampton (5,950,423).

The same teachings with respect to Deeba et al and Hampton apply.

Response to Arguments

9. Applicant's arguments with respect to claims 15-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1454. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Hien Tran

HT

March 13, 2006

Hien Tran
Primary Examiner
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